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https://www.wsj.com/articles/we-are-swamped-how-a-global-trash-glut-hurt-a-25-billion-industry-11564343534

## 'We Are Swamped': How a Global Trash Glut Hurt a \$25 Billion Industry

India's garbage business, from scrap pickers on the ground through layers of sorting middlemen to plastic pellet producers, is struggling with low prices after China restricted garbage imports

By Eric Bellman and Vibhuti Agarwal
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GHAZIPUR LANDFILL, India—Across India, from poor villages to expensive residential areas of cities, millions of trash pickers are at work to collect what other people dispose. They are called raddiwalas, ragpickers, scavengers and waste managers. Some go door-to-door, others gather iron rebar and used bricks on construction sites, still others clean parks and city streets. There are even specialists who gather hair, which is exported in bulk for wigs.

They're the starting point of a multilayered, \$25 billion industry in India that advances through increasingly specialized middlemen and industrialists to eventually turn garbage into new objects. The work is a moneymaker for conglomerates as well as a route out of poverty for some of India's poorest people.

All of that has been upended by a crash in a global garbage market dominated by two players: China, which buys most of the world's garbage, and the U.S., which sells the most. Last year, China dramatically cut the amount of garbage it buys. The reduced demand from China and continued supply from the U.S. flooded the world trash market and drove down the price of garbage everywhere.

Indian recycling companies took advantage of the deep discounts and started importing more trash from the U.S. and elsewhere. In 2018, the imports of mixed scrap plastic to India rose 33%.

The jump in supply pushed prices down for the low-end Indian workers who pick through mountains of locally produced trash for raw materials to sell.



Ambia Khatoon, who collects items for recycling from the trash, in the slum near the Ghazipur Landfill. **PHOTO**: ERIC BELLMAN/THE WALL STREET JOURNAL

That's impacting an Indian trash economy powerful enough to have prompted its own migration pattern: thousands of families left their rural villages to collect garbage in cities. Now, with their garbage hauls worth less, many are returning home.

For the pickers, the going price for a kilo, or 2.2 pounds, of plastic water bottles, which used to bring around 45 rupees—roughly 65 cents—is now worth only about 25 rupees—or 36 cents.

The trash glut also lowered profits for industrial recycling companies who turn the trash into usable materials. Plastic pellets, the end-product after processing some plastic scrap, went from 80 rupees to 45 rupees a kilo.

Malaysia and other countries have also seen a surge in plastic scrap imports, while India and Indonesia are among the top destinations for paper.

"A lot of people came into this industry" in India and around the world when demand and prices were high thanks to China, said Adam Minter, author of "Junkyard Planet: Travels in the Billion Dollar Trash Trade," a book about the rise of the recycling industry. "Now they are having to get out."

China ratcheted up restrictions on imports of recyclable materials to force its recycling industry to absorb more of the waste generated within the country. China also is nudging the country away from the role of accepting others' garbage, which is viewed as a dirty industry. In the U.S.—the world's top exporter of trash—paper and plastic scrap exports to China tumbled more than 30% last year.

The global trash glut means India's own trash is worth less to its domestic recyclers. After a consumer throws out his trash, an early link in the trash chain are people like Ambia Khatoon, who with her family scraped out a living for 15 years by scavenging at the Ghazipur Landfill, a 200-foot-high mountain of trash on the outskirts of New Delhi.

The family pulled in more than \$5 a day, enough to support seven children and to buy the land where they lived in the slum next to the landfill.



A man collects materials for recycling from a trash landfill in New Delhi last year. **PHOTO**: RAJAT GUPTA/EPA/SHUTTERSTOCK

Ghazipur Landfill is one of multiple mountains of garbage around Delhi which have grown for years, climbing higher and higher as hundreds of trucks per day dump the megacity's waste. It can be seen for miles, a towering grey plateau with a flying halo of thousands of scavenger birds circling above.

Men climbed the heap to bring back bags full of scrap material, while women and children sorted the pickings. Worthwhile items included plastic bottles, bicycle rims, cardboard boxes, rubber sandals, copper wires and toothpaste tubes. Even old pieces of bread and rice could be sold to feed the cows of a nearby dairy.

Last year's price upheaval cut their earnings to less than \$3 a day, forcing Ms. Khatoon, 46 years old, and her youngest child to move home to their rural village.

"The prices have never declined so much," she said. "Everything fell. Aluminum, brass, steel, paper, food waste, even hair."

The pickers sell to middlemen, who collect and sort the scrap for sale. They say they often have to sell at a loss now, so are buying less and holding on to inventory hoping for prices to bounce back.

Mohammad Nasir used to move a truckload of recycled plastic each week to buyers, but now he sells a truckload every three months.

"My wife asked me to go buy food," he said, pulling a long grocery list from his pocket. "But I don't have the money."

The next layer—recycled waste can go through 10 or more middlemen before it is reprocessed into something usable—has the same problem. Ninety minutes' drive from the Ghazipur Landfill is the Tikri wholesale plastic market, an open field with acres and acres of scrap divided into piles—car bumpers, syringes, plastic bottles, old desktop phones and even bags filled with just twist caps.

Scrap wholesaler Rush Chauhan says he has been buying and selling much less as demand and prices have tumbled.

How much sorting of your trash for recycling are you willing to do? Join the "If this plastic doesn't sell, it will be bad for the environment," because it will have to be

burned or thrown back into the landfill, he said.

Specialists in different types of plastic buy in bulk at the Tikri market and then further separate, clean, shred and melt it.

Kunal Panwar, a regular buyer, specializes in pens. He buys tons of them, which are cleaned, bleached and chipped. A group of women sorts through large piles of shard and picks out the remaining caps and other parts which are made of a different type of plastic.

"A lot of [scrap] imports have started coming in," but only to certain ports and markets, he said. "Those with connections know how to get it."

Big recycling companies gathered at a conference in Kochi in southern India in February discussed lower prices and the search for new buyers.

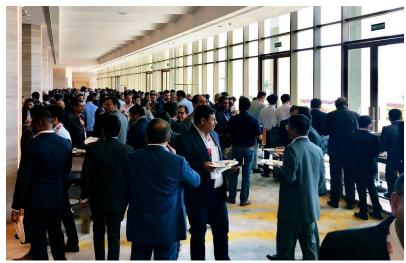
"We are now swamped" with too much scrap, said Ranjit Baxi, head of J & H Sales International, a U.K. recycling company, and president of the Bureau of International Recycling, an industry association. "Outside China, we need to create a demand."

Pramod Agarwal, chairman of Rama Paper Mills in the northern state of Uttar Pradesh, has been filling his warehouses with mixed paper from the U.S., which he uses to make newsprint and cardboard. The imports were cheaper than what he could buy in India and also better quality, meaning fewer nonpaper items were mixed in. "Everyone wanted to take advantage of the price fall" and bought more, he said.

The slum where Ms. Khatoon and her family lived on the edges of the Ghazipur dump is surrounded by 10-foot-high piles of scrap, sorted into different types—aluminum foil, rubber tubing and pens—which is then stuffed and sewn into bulging white plastic bags.

Ms. Khatoon was one of the millions that rode the scrap boom at the start of the century. She arrived by train in 2003 with three bags and six children, to join her husband in the search for a better life.

She started working on the trash mountain. Her three youngest children came with her—one on her back, one by the hand and her eldest following behind.



Executives at recycling companies at a conference in Kochi in southern India in February. **PHOTO:** ERIC BELLMAN/THE WALL STREET JOURNAL

"It was very difficult at first," she said. "I kept fainting and throwing up."

Other times she would leave her children nearby and chase the trucks as they dumped tons of garbage. She learned what to take (brass and aluminum foil were among the most valuable) and what to leave (glass bottles usually aren't worth the trouble). She would search for broken toys for her children to play with.

Ms. Khatoon often didn't eat to have enough to feed everyone else. But India's rapidly expanding middle class was spending like never before and throwing out a record amount of trash. As the mountain grew, so did the value of the things she found on it. And global prices for scrap were soaring, thanks to demand from China.

Her slum swelled to more than 500 families. Rents rose and shops and little eateries opened to serve the waste workers.

Their homes were a patchwork of scavenged materials, part bamboo, part old doors, part corrugated steel, all wrapped in layers of tarp and the remains of plastic billboards. The city connected the slum to electricity and water. Most huts had televisions and satellite dishes.

The type of trash evolved as more Indians could afford more stuff. Water bottles appeared, along with shopping bags, clothes, cardboard and motorcycle helmets. The latest tech, first piles of cassette tapes, then CDs and DVDs started showing up. And cellphones, smartphones and all their accessories.

As the mountain grew it became more exhausting to reach the peak, where the new stuff was dumped. The 10-minute trek grew to 20 minutes. During the hot, dry summers, when temperatures top 110 degrees, pickers lugged liters of water to stay



A slum near the Ghazipur Landfill where many of the people who collect recyclable materials live. **PHOTO**: ERIC BELLMAN/THE WALL STREET JOURNAL

hydrated. Methane fires sprouted up across the mountain, lighting up the night.

China's shift in policy, and the drop in prices, had a sharp effect on the slum. Workers are now struggling to avoid plummeting deep below the poverty line.



A truck unloads at the Ghazipur Landfill last year. **PHOTO:** XAVIER GALIANA/AGENCE FRANCE-PRESSE/GETTY IMAGES

Almost one in five families has left. Others have turned to day labor, pedaling bicycle rickshaws or cleaning the nearby meat market.

Ms. Khatoon's family has had to sell jewelry and put off doctor visits. Her husband and sons get occasional day labor jobs but don't make the same amount they made off scrap.

At a breaking point, Ms. Khatoon and her youngest child moved back to their village, to a mud and bamboo hut that has been unused for 15 years. It leaks when it rains and only gets power for a couple of hours a day.

Ms. Khatoon said she misses the materials available at the landfill. She could use more

plastic sheets to stop the leaking and she would cut used shower curtains to create windows and bring in light.

There is no work, so they wait for money from the family remaining in New Delhi. An eye injury Ms. Khatoon has, from being hit on the trash heap by the swinging back flap of a truck, is acting up, but she can't go to the doctor. Her daughter is 16, nearing marriage age, but the family can't afford it. They couldn't celebrate Eid al-Fitr this year, an important Muslim holiday.

Ms. Khatoon said she would prefer that her 10 grandchildren didn't have to suffer village life. "We want them to grow up in the city even if it is in the slums," she said. "I'd go back if the scrap prices were better. It is the only job that I know."



Car bumpers at the Tikri wholesale market last week. **PHOTO**: REBECCA CONWAY FOR THE WALL STREET JOURNAL

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